

Okay everyone!! I finally found the clarity that I was seeking that should better explain what we are dealing with as far as indoor air exposures to the public based on occupational values we have derived. EPA put together an extremely useful visual aid that lumps in occupational, acute, short term, subchronic, chronic and general public exposures all in one visual aid. On the viewer its page 177; the document page is 170 for Phosphine. Hopefully this will help assist in making the health call on when it is safe to reoccupy the residence.

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-----Original Appointment-----

From: May, Shaun [<mailto:Shaun.May@amarillo.gov>]

Sent: Friday, February 10, 2017 3:42 PM

To: May, Shaun; 'Milton, S'; Bojes, Heidi (DSHS); Young, Patrick; 'Martin, Thomas'; Turner, Philip

Subject: Tentative hold for Final Sampling Discussion (City of Amarillo)

When: Wednesday, February 15, 2017 3:00 PM-4:00 PM (UTC-06:00) Central Time (US & Canada).

Where: Conf Call - Call-in Number (b) (6) Access Number (b) (6)

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Note: The GMT offset above does not reflect daylight saving time adjustments.

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Discussion about final sampling results

Sampling Location	Result ppm (mg/m³)	Comparison Levels Occupational ppm (mg/m³)	Comparison Levels Residential ppm (mg/m³)
Bedroom 1	0.019 (0.026)	EPA AEGL 8-hr ¹ 0.45 (.63)	EPA RfC chronic ⁵ 0.0002 (0.0003)
Bedroom 2	0.019 (0.027)		
Bedroom 3	<0.016 (<0.023)		
Bathroom 1	0.018 (0.024)	OSHA PEL 8-hr ² 0.3 (0.42)	
Bathroom 1	0.021 (0.030)		
Bathroom 2	<0.016 (<0.023)		
HVAC system	0.024 (0.033)	NIOSH STEL 15-min ³ 1 (1.4)	
Kitchen	0.017 (0.024)		
Laundry Room	0.021 (0.029)		
Laundry Room	0.017 (0.024)	NIOSH IDLH ⁴ 50 (70)	

1. EPA Acute Exposure Guideline Levels (AEGL) for airborne chemicals describe the human health effects from once-in-a-lifetime, or rare, exposure to airborne chemicals. Used by emergency responders when dealing with chemical spills or other catastrophic exposures.

2. The Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) is 0.3 ppm as an 8-hour time-weighted average. The PEL is the level intended to be protective of workers' health for an entire 8- or 10-hour work shift.

3. The National Institute for Occupational Safety and Health (NIOSH) short-term exposure limit (STEL) for phosphine is 1 ppm. This is a 15-minute time-weighted average concentration that should not be exceeded during any part of a workday.

4. NIOSH has established 50 ppm as the immediately dangerous to life and health (IDLH) concentration for phosphine gas. The IDLH is the concentration that could result in death or irreversible health effects.

5. EPA reference concentration (RfC) is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without appreciable risk of deleterious noncancer effects during a lifetime. It is not a direct estimator of risk, but rather a reference point to gauge the potential effects. Lifetime exposure above the RfC does not imply that an adverse health effect would necessarily occur.